



Annexure - IV
Mumbai Base

भारत सरकार / Govt. of India
मुंबई बेस / Mumbai base of
भारतीय मात्स्यकी सर्वेक्षण / Fishery Survey of India
न्यु फिशिंग जेटी / New Fishing Jetty,
तल एवं प्रथम मजिल / Ground & 1st Floor,
प्लॉट नं. 2 'ए' युनिट नं. 12 / Plot No. 2, Unit No. 12,
ससून गोदी, कुलाबा / Sassoon Dock, Colaba,
मुंबई / Mumbai - 400 005.

Tel. No : 22181760

Tele Fax : 22160729

E-mail : fsimumbaibase@gmail.com

F. No. 6-23/2016-17 Fy

Date: 24/04/2018

From: THE SERVICE ENGINEER (M.)

To: ✓ The Director General (i/c),
Fishery Survey of India,
Sassoon Dock, Colaba,
Mumbai- 400 005.

Sub: 15th Consultative group meeting of Mumbai Base of FSI- Forwarding of the minutes
& Survey Programme 2018-19 approved by the Chairman- Reg...

Ref: 1) This Office letter of even No. dated 21/02/2018.

Sir,

Kindly refer to the letter cited on the above subject. In this regard, I am to forward herewith the minutes of the meeting of the 15th Consultative Group of Mumbai Base of Fishery Survey of India, Mumbai held on 23rd February 2018 at this office as well as a copy of the survey programme 2018-19 discussed, finalized and approved by the Chairman of the meeting, for kind information.

Yours faithfully,

SERVICE ENGINEER (MECH.)

Encl: As above

**MINUTES OF THE 15th CONSULTATIVE GROUP MEETING OF MUMBAI
BASE OF FISHERY SURVEY OF INDIA HELD AT THE OFFICE
CONFERENCE HALL ON 23/02/2018**

Shri. Govind Bodke, IAS, Commissioner of Fisheries, Govt. of Maharashtra Chaired the meeting and the following members/observers attended the meeting.

Sl. No	Name and designation	
1	Dr. L. Ramalingam, Dy. Director General (Fy.), Fishery Survey of India (HQ), Mumbai	Special Invitee
2	Dr. Anulakshmi Chelappan, Scientist & representative, Mumbai Research Center of CMFRI, Mumbai.	Member
3	Shri A. S. Thosar, Sr. Dy. Traffic Manager (operation-outline area), Mumbai Port Trust, Mumbai	Member
4	Shri. Dilip Pagdhare, Chairman, Mahim Machchimar V.K.S. Society Ltd., Mumbai	Member
5	Shri. Amol Yoge, Chairman, Raingad Fishermen Association, Sassoon Dock, Colaba, Mumbai	Member
6	Shri B. Balanayak, Service Engineer (Mech.) Fishery Survey of India, Mumbai Base	Member/ Convener
7	Shri. V. V. Naik, Jt. Commissioner of Fisheries, Govt. of Maharashtra, Mumbai	Observer
8	Shri. Rajendra Jadhav, Jt. Commissioner of Fisheries, Govt. of Maharashtra, Mumbai	Observer
9	Dr. S. K. Dwivedi, Fisheries Scientist, Mumbai Base of FSI, Mumbai	Observer
10	Shri. Ashok Kadam, Fisheries Scientist, Mumbai Base of FSI, Mumbai	Observer
11	Dr. Dewanand Uikey, Sr. Scientific Assistant, Mumbai Base of FSI, Mumbai	Observer
12	Shri. Amod Tamhane, Sr. Scientific Assistant, Mumbai Base of FSI, Mumbai	Observer
13	Miss. Roshan Peter, Sr. Scientific Assistant, Mumbai Base of FSI, Mumbai	Observer

Following members could not attend the meeting

1. Representative, Mercantile Marine Department, Mumbai
2. Dr. L. N. Murthy, Scientist Representative, CIFT, Mumbai

Dr. L. Ramalingam, Dy. Director General (Fy) welcomed the Chairman and all the members of the consultative group and further informed / explained the main objectives of the consultative group meeting towards formulating the survey programme for the year 2018-2019. He said that the FSI is functioning under the Min. of Agriculture and Farmers Welfare, New Delhi. Ministry has constituted this Consultative Group of FSI, Mumbai Base and suggested that the Survey Programme of the Base should be approved in this Consultative Group meeting duly incorporating views/recommendations of fishermen, State Fisheries officials and other respected members before it is put up in the annual 'Review of the Operational and Scientific Activities' (ROSA) meeting of FSI for finalization. Thereafter, he asked the member-convener to welcome & felicitate the Chairman by offering shawl and bouquet. All other members also felicitated by the staff of FSI, Mumbai Base.

Chairman too welcomed all the participants of the meeting and asked to start the deliberations as per the Agenda. The brief introductory address on FSI activities and achievements delivered by Shri A. S. Kadam, Fisheries Scientist. He briefed through power point presentation about FSI since its inception till date by illustrating transformation of FSI from Deep Sea Fishing Station started in the year 1946 for augmenting protein rich food supply during food scarcity period occurred due to the effect of the World War -II. Thereafter, the regular research on the marine fishery recourses and charting of fishing grounds by first transformation called Exploratory Fisheries Project in the year 1974. Further, after the declaration of the 2.02 million sq. km. of Indian Exclusive Economic Zone (EEZ) and re-orientation of the activities and responsibilities of the institute, second transformation took place with the new name 'Fishery Survey of India' in 1983 with new mandate / charter of work. At present the FSI is working with HQs at Mumbai and six Operational Bases situated all along the coastal belt at Mumbai (Maharashtra), Mormugao (Goa) and Kochi (Kerala) on the west coast and Visakhapatnam (Andhra Pradesh), Chennai (Tamil Nadu) and Port Blair (A & N group of islands) on the east coast with 11 sea going vessels. While discussion on the EEZ map, DDG (Fy) informed that India has two EEZ areas, i.e. EEZ around A & N islands and other is around the main land. While discussion on the training being given to the fishermen onboard Matsya Vrushti under the NFDB funded programme, the Chairman asked the number of fishermen trained by this Base. Further, the Chairman enquired why the Maharashtra fishermen are not interested for deep sea fishing especially for tuna fishing. Shri Amol Yoge, fishermen representative told that Maharashtra fishermen tried to go for tuna fishing and also had good catch but presently, there is no market for this fish in the nearby area for tuna meat and that's why they are getting poor return for this catch (around ₹ 100 / kg) . He further added that there is good scope for tuna fisheries in this area but because of poor market facilities,

they have to sell this catch to the agents from Southern States at low price. Dr. Annulakshmi, representative, CMFRI added that the tuna fishing is more popularized in Southern States mainly because of the availability of processing units and proper market/export facilities. Chairman mentioned that, if the fishermen societies come forward with a suitable proposal for tuna meat processing unit then Fisheries Dept. of Maharashtra Govt. will try to provide the same so as to develop the tuna fisheries in Maharashtra. Shri Rajendra Jadhav, Jt. Commissioner of Fisheries added that the fishermen have to take initiative and come up with suitable proposals which will be scrutinized and action deemed fit will be taken by the department in the interest of development of deep sea fishing in the State. Shri Amol Yoge informed that the fishermen are ready to convert their few boats to tuna long liner with condition that Govt. should purchase the catch from them at the minimum reserve price and processing unit should be managed by the Govt. agency only.

While discussion on the dissemination of information gathered by the FSI, Mumbai Base, Chairman enquired whether FSI is forwarding this information to all the fishermen societies of Maharashtra and if not he suggested to make available the soft copy of the RIS to Fisheries Deptt. and they will take care to disseminate the same to all the fishermen of the State.

While discussion on the fishery resources assessment, Chairman asked both the Jt. Commissioners about the practice for resource assessment at their office and told them to fix the target for marine fishery resources assessment on annual basis and also advised to take necessary data either from FSI or CMFRI for the same. Shri V. V. Naik, Jt. Commissioner said that they are using the landings data collected by CMFRI since beginning and they have received assessment data till 2010. No further data is available with them, he added. Dr. Annulakshmi informed that they have analyzed the data till 2012 and rest of the data is under process which will be made available to them after completion of analysis.


Chairman asked about the validation of the PFZ advisories. Shri Amol Yoge said that the PFZ maps forwarded by INCOIS, Hyderabad are really useful and confirms the catch availability but the variety of the fish available is unknown. Shri V. V. Naik, Jt. Commissioner said that the FSI has validated the PFZ advisories as they are surveying in the deeper water areas also. He added that the Rani fish and Upenoid stocks were first identified and popularized by FSI only and now it is utilized by the people on daily basis.

While discussion on the proposed survey programme for the year 2018-19, chairman enquired about the staff (especially scientific) strength / vacant posts, if any so as to continue the survey by participation onboard the survey vessels. Dr. S. K. Dwivedi, Fisheries Scientist said that

there is no enough staff strength and many vacant posts have been abolished as not filled*since long period.

Recommendations given by the members are furnished below:

1. FSI in collaboration with CMFRI should recommend to the Ministry for formulating the Deep Sea Fishing Act so as to encourage the local fishermen for the deep sea fishing -
Shri Govind Bodke, Chairman
2. More fishermen should be provided with hands-on training onboard the survey vessel Matsya Vrushti so as to get first hand information on how to catch big size fishes and post harvest preservations and handling techniques of fish catch for supply as sashimi grade tuna meat -
Shri Govind Bodke, Chairman
3. More regional workshops should be organised in Maharashtra for the benefit of local fishermen in collaboration with the State Fisheries Dept. - Shri Govind Bodke, Chairman
4. Uniform Maritime law for east as well as west coast should be formed. This was earlier recommended by the Murari committee during 1995 but afterwards no action was taken on this issue -
Shri Dilip Pagdhare
5. FSI/CMFRI should send the proposal for increasing the period of uniform fishing ban period as most of the fishermen are in favour of this - Shri Govind Bodke, Chairman



Chairman
(Shri Govind Bodke)
Commissioner of Fisheries,
Govt. of Maharashtra

आयुक्त मत्स्यव्यवसाय
महाराष्ट्र राज्य, मुंबई

PROPOSED FISHERY RESOURCES SURVEY PROGRAMME FOR THE YEAR 2018-2019

DEMERSAL RESOURCES SURVEY, ASSESSMENT AND MONITORING OF FISH STOCKS ALONG NORTH MAHARASHTRA AND GUJARAT COAST BETWEEN LAT. 18°N AND 23°N

Project Coordinator: ZONAL DIRECTOR

Project Components

- Exploratory survey of Demersal resources using fish trawl in 100 – 500 m depth.
- Monitoring of Demersal resources using fish trawl in 30-100 m depth.
- Exploratory survey using shrimp trawl in 30-100 m depth.
- Experiments for assessment of fishing gear efficiency.
- Mesh selectivity studies with cod-end cover.

Period : April 2018 - March 2019

Project Objectives

- Preparation of species inventory of Demersal finfish and shellfish resources.
- Estimation of abundance indices of Demersal resources and major components thereof with emphasis on Sciaenids, Threadfin breams, Catfish, Bulls eye, Barracuda. Ribbon fish, Horse mackerel, Scads, Squids and Cuttlefish.
- Identifying spatio-temporal distribution pattern of above resources.
- Study of biological aspects of important resources.
- Stock assessment of important species/resources.
- Study of suitable mesh size for important species.

Survey and Research Team

Project Leader	Project Associates	
	Scientist (s)	Engineer (s)
Dr. S. K. Dwivedi, Fisheries Scientist,	Shri. A. S. Kadam, F. S. Shri. Jacob Thomas, Jr. F. S. Dr. D. E. Uikey, Sr. S. A. Shri. A. V. Tamhane, Sr. S. A. Miss. Roshan Maria Peter, Sr. S. A.	Shri. B. Balanayak Service Engineer (Mech.)

Base of operation : Mumbai

Vessel : Matsya Nireekshani

Gear : 1) 34 m Fish trawl (FT)
2) 45 m Shrimp trawl (ST)

Vessel officers

Skipper : Shri. G. Gopikrishnan (Skipper in-charge)

Fishing Engineer : Vacant

Survey strategy : 1. Stratified random sampling

2. The survey area to be divided into two sectors viz. Sector I (Lat 18°N to 20°N) and Sector II (Lat 20°N to 23°N)

3. Survey cruises to be conducted alternatively in each sector. In each cruise, sampling shall begin from the farthest Latitude as far as possible.

Distribution of sampling effort

Particulars	Exploratory Survey		Monitoring survey	
	FT	ST	FT	ST
Gear				
Depth zone (M)	100-500	100-500	30-100	30-100
Extent of area (Km²)	14590	14590	97735	97735
No. of hauls	10	10	10	20

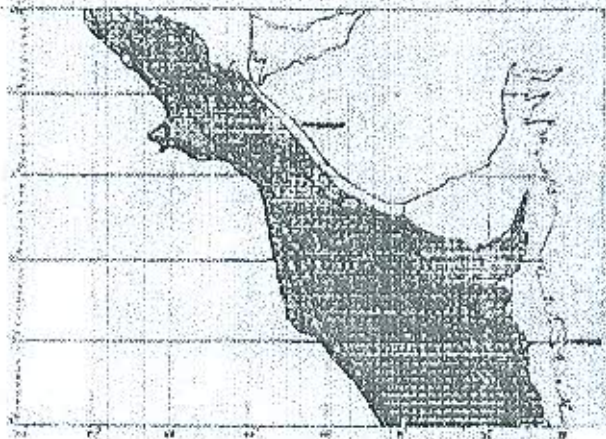
PHYSICAL TARGETS PER CRUISE

Days out as Sea : 20

Fishing days : 16

No. of hauls : 50

Duration of haul : 90 minutes



Approved

(Signature)
Chairman

Consultative Group

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महाराष्ट्र राज्य, मुंबई

TUNA RESOURCES SURVEY USING MONOFILAMENT LONGLINING ALONG THE WEST COAST OF INDIA BETWEEN LAT. 4°N AND LAT. 23°N

Project Coordinator: ZONAL DIRECTOR

Project components

Survey of oceanic tunas and allied resources using monofilament longlining between Lat. 4°N and 23°N.

Period : April 2018 to March 2019

Project objectives

- Estimation of abundance indices of oceanic tuna and allied resources.
- Identifying spatio-temporal distribution pattern of the tuna and allied resources.
- Study of biological parameters in respect of important species.
- Stock assessment of important resources.
- Study of oceanographic parameters.
- Imparting training in fishing techniques and demonstrations of modern equipment onboard to the fishermen, fishing industry representatives and entrepreneurs.

Survey and Research Team

Project Leader	Project Associates	
	Scientist (s)	Engineer (s)
Shri. A. S. Kadam, Fisheries Scientist	Dr. S. K. Dwivedi, F. S. Shri Jacob Thomas, Jr. F. S. Dr. D. E. Uikay, Sr. S. A. Shri. A. V. Tamhane, Sr. S. A. Miss. Roshan Maria Peter, Sr. S. A.	Shri. B. Balanayak, Service Engineer (Mech.)

Base of Operation : Mumbai

Vessel : Matsya Vrushti

Vessel officers

Skipper : Shri. D. Mehalingam

Chief Engineer Gr. I : Shri. Joy Moothedan

Gear : Monofilament long line with 7/8 hooks per basket.

Survey strategy

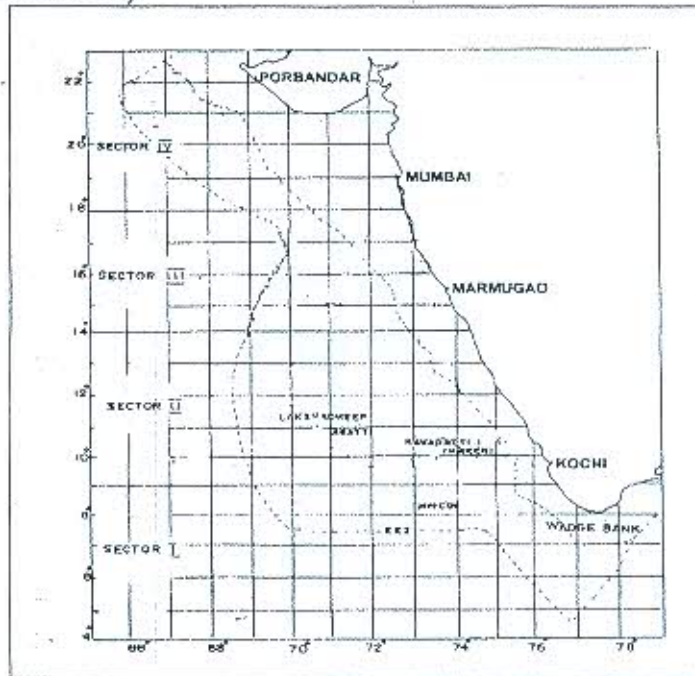
1. The survey area to be divided into four sectors viz. Sector I (Lat 4°N to 9°N), Sector II (Lat 9°N to 14°N), Sector III (Lat 14°N to 18°N) and Sector IV (Lat 18°N to 23°N).
2. Survey cruises will be conducted alternatively in each sector.

Operational target per cruise

Days Out at Sea : 20
Fishing days : 12/14/16
Hooks per set : 630

Sector	Area	Months	No. of sets per cruise
I	Lat. 4°N – 9°N	5	12
II	Lat. 9°N – 14°N	8, 10, 6	14
III	Lat. 14°N – 18°N	11, 1, 3	16
IV	Lat. 18°N – 23°N	12, 4, 2, 9	16

Survey area: (Lat. 4°N-23°N)



Collection of Environmental Data:

Besides the catch and biological data being collected in longline survey, data on environmental parameters will be collected as follows:

1. Salinity, Temperature and Depth (STD) data per day per set.
2. Sea Surface Temperature (SST) data at specific time, one observation per set especially during immersion.
3. Data on current direction and speed, one observation every day (sets are to be made at specific depth).
4. Secchi disc observation (3 readings) for every set made after setting the line.

Approved

Chairman

Consultative Group

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